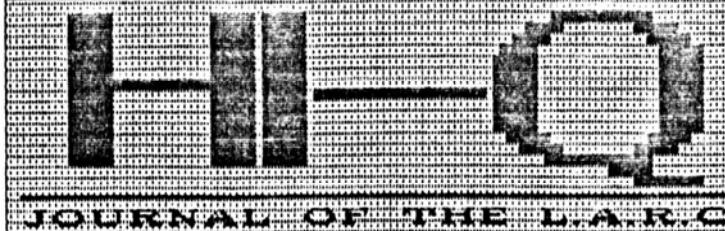


APRIL 1990

AMATEUR RADIO IN THUNDER BAY - ONTARIO

EDITED BY E.R.  
BAUMANN VE3SNW  
ARTICLES?  
BEEFS?

736 S. NORAH ST.,  
THUNDER BAY, ONTARIO,  
CANADA, P7E 1P7



JOURNAL OF THE L.A.R.C.

NEXT MEETING IS THURSDAY  
APRIL 12, 1990

CONFEDERATION COLLEGE

EVERYONE WELCOME



## SATELLITE WORLD

I'm sitting in the shack listening to Oscar 13 while composing this column. The satellite is 28900 Kilometers high, and the distance from my QTH is 24600 Kilometers and increasing. The footprint covers most of North America, all of South America, along with 80% of Europe and the eastern half of the African continent. Signals are not plentiful on the satellite with the few heard being located in North America. This is unusual for a Friday evening, normally a busy time on the bird. The attitude change recently completed has affected access to the satellite with a higher EIRP needed to get through. Maybe, as time passes, the satellite attitude will improve. I will have to talk to some of the old hands and find out if better things are yet to come.

My antenna system is switchable from right hand to left hand polarization. Relays along with a phasing harness performs this chore. Right hand polarization is the norm for working the satellite but this evening I had to switch over to left hand which increased my signal by 2 "S" units. Since you can hear your downlink signal, adjustments in power, and polarization, can be made to increase, or decrease, the downlink signal. Your signal should compare to the satellite beacon.

As to what has been worked lately, nothing too exciting, but still interesting, FG8MEJ, G6YTB, along with other European and U.S. stations.

Shteve VE3KRH has been listening for DOVE, the Microsat which beacon transmits telemetry via packet on 145.825 at 1200 baud. A regular modem used for vhf packet will translate the beacon. Dove has two passes a day which are fairly close to Thunder Bay, and it can be heard at its closest point with a hand held with a rubber duckie antenna. At 0345 UTC, March 31st the Microsat was 177 Kilometers East-South-East of Thunder Bay, practically overhead. Dove passes over our part of North America occur between 00:00/06:00 UTC and 14:00/20:00 UTC, with the closest pass occurring about the middle of the above times. Try it out, take a listen and remember about the doppler shift, look both sides of 145.825 Mhz.

I'm presently building a PSK 1200 amateur radio Club History Project for the Microsats and will advise results when

## PACKET CLINIC A SUCCESS!

VE3SWC (Sir Winston Churchill High School) was the site of the *Lakehead Amateur Radio Club* sponsored packet clinic. It was well attended with just under twenty amateurs and students turning out. Out of town amateurs included VE3IDJ - Bob from Ignace, and VE3JJV - LLoyd from Dryden. That's a long drive from a few hours workshop, but I think everyone who dropped in got something in the way of information, and hopefully it was everything that they wanted!

VE3EFC and VE3JAU brought in complete packet stations and VE3SWC was also up and running. This represented a good variety of equipment for newcomers to review, and an excellant opportunity to get their feet wet in packet.

VE3JAU (Glen) presented packet from the ground up, which was most appreciated by the newcomers, as well as those with just a little bit of experience. VE3KRH (Shtev did a super job discussing NET ROM a nodes, covering both VHF and HF. Perhaps there may be a need again to have a packet clinic after we have had more time to operate and look at the more intricate ins and outs of the system.

Thanks go out to Bill and Glen for bringing in the hardware, and the Glen and Shteve for doing bang up jobs in presentations. If you were unable to make it out for this one, keep tuned in for the next one.

73 de VE3AVS/SWC

*At the next packet clinic there will be a collection to buy AVS a typewriter that can spell !!!!ed*

### NEW MODE DISCOVERED

Amateurs at a reclusive commune in California announced the discovery of a new type of transmission employing Modulated gravity waves. In line with their "green" philosophy, only organic components are used. For example, antenna systems are comprised of two by fours (pressure treated preferred for long life) buried in the ground. Modulation is provided by thought waves while in a meditative solid state and chanting the Morse code. Other researchers remarked "this discovery ranks right up there with cold fusion!"

*we get it operational. I'd like to hear about your 10 meter packet at 1200 baud too, Butchery Project.*

73 de VE3HFS Pat

UPCOMING EVENTS !!

April 12th - 1930 Hours - Regular Meeting at Confederation College (McIntyre Building)

May 10th - 1930 Hours - regular Meeting at Confederation College

**MAKE PLANS FOR FIELD DAY - KAKABEKA PARK - END OF JUNE !!!**

**PHL'S DICTIONARY.....JOHN VE3PHL**

**ACORN TUBE** - A button or acorn shaped vacuum tube with no base, for uhf applications. Electrodes are brought out through the glass envelope on the side, top, and bottom.

**BRUCE ANTENNA** - Original name of the Rhombic End Fire antenna which consists of a diamond shaped arrangement of four wires with the feed line at one end and a resistive termination at the opposite end of the longer diagonal.

**CATHWHISKER** - A small pointed wire used to make contact with a sensitive area on the surface of a crystal or semiconductor.

**PINCH-OFF** - In a Field Effect Transistor, a condition in which the gate bias causes the depletion region to extend completely across the channel, with a resulting cessation of drain current.

**VIBRATION** - A triode with an anode that can be moved or vibrated by an external force, thus, the anode current will vary in proportion to the amplitude and frequency of the applied force. An important component of the new gravity wave receiver.

**DESTINATED** - A word used to announce that you have arrived at your destination and will be clear/qrt.

**ARRIVINATED** - opposite of destinated.

*The sign in the field read IF YOU'RE GOING TO CROSS THIS FIELD, DO IT IN 9 SECONDS -- BECAUSE THE BULL CAN DO IT IN TEN!*

**FLASH**...An insider with the DOC reports that they have been unable to duplicate the gravity wave modulate scheme. Apparently they were unable to get enough fat people to jump up and down to achieve modulation as most of the politicians had gone home for the long weekend. In an other leaked government document it was revealed that when the new licencing scheme comes into effect, being able to colour within the lines will be a large component of the new examination. You heard it here first!

have a happy EASTER !

**PREZ SEZ**

Hello from Nolalu! To start, I would like to thank Pat VE3HFS for his talk on Amateur Satellites (AMSATS). It was interesting and informative. With two new packet satellites (PACSATS) launched on January 21, I think it's safe to say that packet networks linked with the new satellites

are going to be the inevitable future of amateur radio. In the not so distant future, we will be able to access the mailboxes in the sky and leave messages (and HI-Q's...ed) worldwide. Imagine the possibilities!!!

The wind-up for the JEEP500 was on March 9th at Old Fort William. Skip VE3BBS presented the hats to those in attendance in front of about 120 volunteers. The Club got good publicity this time around. **GOOD WORK SKIP!**

The Sibley Ski Tour went without a hitch (almost) but we talked about that last month. On March 24th, Dave VE3AVS held a Packet Clinic at Sir Winston Churchill High School (VE3SWC). It was well attended and gave everyone the opportunity to see a variety of packet equipment. Steve VE3KRH preser d information on gateways and nodes which s helpful to me - Thanks Steve. Bill VE3EFC brought over Skips equipment and I brought the Digicom>64. I did a half hour on the basics of packet for those just starting, and explained the features of the Digicom>64. From the comments afterwards, I feel the effort was well appreciated. Thank You!

The YQT funding project is advancing slowly, with some support coming forthwith. More details next month.

VE3YQT, the club repeater, is still unreliable. The day of the Sibley Ski Tour, it was off the air the whole day. It came back on its own the next day but I've been hearing reports that the signal has been up and down. Lindo VE3NHX, myself and anybody else will be going up there soon. There are a couple of theories why its acting this way (poltergeist?...ed). It should not be difficult to rectify the problem; we just have to get up there.

A reminder to C64 owners interested in trying packet. I have the club's DC>64 Modem and software available for loan. The Modem is wired for Icom handhelds, but can easily be adapted for other transceivers. Please let me know if you are interested in trying it out at no cost to you.

VE3TBR (Thunder Bay's other Repeater) is now running solely on 12 volts D.C. This sh d provide us with excellant reliability even during hydro outages - something we never had before. Lately, we had to make numerous trips to reboot the computer because of temporary power failures, but that should now be a thing of the past. Lindo's ingenuity has also removed the annoying background hum on the

## PREZ SEZ CONTINUED

transmitter. Still no word from the cable company as whether they are going to do anything to reduce their susceptibility to rfi from TBR. I will approach them shortly. The work on TBR is reaching its final phase as all major projects (except Maolean-Hunter's rfi problem) have been accomplished, again thanks to Lindo.

After Steve's excellent speech on packet nodes, I decided to implement what I had learnt and was pleased with the results. Using a small number of nodes, I managed to connect "down" to Rick NI9Z home area. For those who don't know Rick, he's from West Bend, Wisconsin, and comes to Thunder Bay frequently on business. The "path" to Plymouth, Wi., seems to be reliable once we get across Lake Superior to the Upper Peninsula. When the path is good, a response back from the other end can be expected in about five minutes. This isn't bad, considering it is done on VHF, and it takes 12 hours to drive there.

Field Day is the 4th weekend in June and it may be held at Kakabeka Falls Park. It doesn't hurt to start planning now.

As a final note I would like to say thank you to those who are taking an active role in the various projects within the Lakehead ARC. It is reassuring to see the interest of those who are doing their part to make your club a success. Keep up the good work and others will follow your example.

73's de Glenn VE3JAU  
475-3516  
YQT,TBR,145.01,3.686

## WANTED

Several local amateurs wish to establish a digipeater on 145.03, contributions in the form of an old single channel radio, collinear antenna, or other items for a reasonable price will be appreciated. Contact VE3SNW if you can help. Thanks.

## YOURS TO DISCOVER

A petition is afoot to change the lettering on the Ontario Licence Plate with Amateur Call letters from "YOURS TO DISCOVER" to "AMATEUR RADIO". The proposed change would make us more identifiable to government and law officials, and the general public. The Windsor Amateur Radio Club asks for your support. The Historic Vehicle Society of Ontario has already set the precedent with their "HISTORIC VEHICLE" plates. Please cut out the short questionnaire and mail to BOB GAMMON, VE3CJX, 3648 BYNG ROAD, WINDSOR, ONTARIO, N8W 3H9. THIS INFORMATION WILL BE USED FOR A PRESENTATION TO THE MINISTRY OF TRANSPORTATION, DEPARTMENT OF MOTOR VEHICLES IN TORONTO.

## CONSTRUCTION ARTICLE by lirpa loof

Here's your chance to run solar power at field day with your very own solar panel! In a large non-conductive cookie sheet lay a zig pattern with 2 cm spacing between the zags with 12 gauge solid and bare copper wire. Let one end dangle over the edge as this is the positive electrode. Keep the pan level and cover the wire to a depth of .2 cm with Calcium Disodium EDTA. Lay a zig pattern of 6 gauge solid and bare copper wire with 2 cm between zigs, orientated 90 degrees to the first pattern. Again let one end hang over, this is the negative electrode (cathode). Cover this grid with a .2 cm layer of Polysorbate 60. Cover everything with a very thin layer of Propylene Glycol Alginate mixed in a large bowl with xanthan gum. Be careful! Too thick a layer will inhibit light conduction. Prepare an oven large enough to put the sheet into by preheating it to 1200 degrees. Bake for three hours. Check frequently, the top layer should turn translucent, heat it too much and it will blacken. Remove from the oven and let cool for several hours. During that time construct a frame of wood or metal to contain your solar cell. When cool, install in the frame. Orient the cell with the anode (zigs) towards the light. You will have to make your own measurements due to the large number of variables in cell performance. One researcher noted however, that the power output of an average size cell should be at least equal to the output of a cold fusion cell. Enjoy!

YES NO

--- --- ARE YOU IN FAVOUR OF CHANGING THE EXISTING AMATEUR CALL PLATES TO REPLACE THE WORDS "YOURS TO DISCOVER" WITH "AMATEUR RADIO"

--- --- DO YOU CURRENTLY HAVE AMATEUR CALL LICENCE PLATES ON YOUR VEHICLE

--- --- WOULD YOU REPLACE YOUR CURRENT AMATEUR CALL LICENCE PLATE WITH THE PROPOSED NEW ISSUE WHEN THEY BECOME AVAILABLE

--- --- WOULD YOU BE WILLING TO PAY THE CURRENT REPLACEMENT FEE OF \$10.00 TO OBTAIN THE NEW ISSUE PLATES.

--- --- IF YOU CURRENTLY DO NOT HAVE AMATEUR RADIO CALL LICENCE PLATES WOULD YOU BE INTERESTED IN OBTAINING THEM WHEN THE NEW ISSUE BECOMES AVAILABLE.

## Calendar of Events (from CARF)

April 28-29 Swiss Helvetia Contest  
 April 28-29 Hispanic DX Contest  
 May 5-6 Massachusetts QSO party  
 May 5-6 Nevada QSO Party  
 May 5-6 MARAC County Hunters CW  
 May 12-13 Alabama/Georgia QSO Party  
 May 12-13 CQ-M DX Contest  
 May 19-21 Michigan QSO Party  
 May 20 OMARC Spring Midnight  
 May 26-27 CQ WW WPX CW Contest  
 June 2-3 RSGB Field Day  
 June 9-10 ARRL VHF QSO Party  
 June 16-17 All Asian Phone Contest  
 June 23-24 ARRL Field Day  
 July 1 CARF Canada Day Contest  
 July 14-15 CQ-WW-VHF-WPX Contest  
 July 14-15 IARU HF World Champ  
 July 28-21 World Radiosport Team Chp.  
 August 25-26 All Asian CW Contest  
 Oct 27-28 CQ WW SSB DX Contest  
 Nov 24-25 CQ WW CW DX Contest  
 Dec. 30 CARF Canada Winter Contest

ED SEZ!

Welcome to another 11th hour issue of HI-Q. A Hearty Thank You to all the contributors, the time you spent sitting down and writing a column or article is appreciated by me more than you can know. Editing is one thing, composing items for print is something else again, and I just don't have the expertise or experience to write a whole newsletter by myself. Even Wayne Green needs a little help. Satellite world was transferred to me via packet, but alas, shortly after the audio section of the packet rig went KAPUT! I am therefore off packet until I can drag it down to the shop and repair it. Or get a new rig. (I had to say that because my wife reads this and my birthday coming up shortly). My apologies if this doesn't reach you before the meeting. Work keeps getting in the way of my hobby. Bye. 73's and stuff  
 Ed VE3SNH

## SHORTS FROM CARF NEWS SERVICE..B.H.BURDSALL VE3NB EDITOR

Antenna structure troubles? Ask the DOC for circular CPC-2-0-02 Issue 1

VE3CNE (Canadian National Exhibition) is compiling a list of clubs across Canada who provide courses in Amateur Radio. Send info about your course (dates, times, location, contact persons, etc.) to John Iliffe VE3CES, 387 Selby Crescent, Newmarket, Ontario, L3Y 6E2

15th April 1912 at 0815 hours **CQD SOS FROM RMS TITANIC WE HAVE STRUCK ICEBURG SINKING FAST COME TO OUR ASSISTANCE POSITION LAT 41.46N LONG 50.14W.** Sent by Marconi Wireless Operator Jack Phillips who later died from exposure in the freezing Atlantic.

Special Call Sign VE1MD has been assigned to Sydney N.S. ARC for Saturday April 21st to commemorate International Marconi Day.

The Wireless Institute of Australia celebrates its 80th anniversary in 1990. It's the world's first and oldest National Radio Society and consists of seven autonomous State divisions, with a Federal Executive Office.

If you are using the CARF outgoing QSL bureau please use standard postcard size cards. Odd sized cards cause problems and apparently they handle more than a quarter million cards a year! They also request bubble pack bags rather than fibre padded bags. The fibre from the bag is a possible health hazard when cut open.

Saturday June 16 at 0930 hours, the CARF Annual General Meeting open to all paid members. At the Donald Gordon Centre, Queen's University, Union Street, Kingston, Ontario.

Lithuanian amateurs are reportedly using the LY prefix assigned before WW 2 instead of the Soviet assigned UP. QSL's go to BOX 1000, Vilnius 232001, Lithuania instead of Box 88 Moscow.

THIS SPACE FOR RENT